



Key Challenges Facing the Natural Gas Industry

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American Gas Association

- ❖ Represent 195 local energy utility companies
- ❖ AGA companies deliver natural gas to more than 56 million homes, businesses and industries throughout the US.
- ❖ AGA companies account for roughly 83 percent of all natural gas delivered by the nation's distribution companies.



Business Environment

- ❖ Customers need relief from high and volatile gas prices
- ❖ High gas prices cause conservation and increased competition from electricity-pressure on earnings
- ❖ Employees need relief from growing health care and pension costs
- ❖ Regulators expect compliance with existing and future regulation





Need collaborative R&D
if we are to meet
current and future
energy needs
without compromising
safety and reliability

Funding Environment

- ❖ FERC surcharge for gas-consumer benefits R&D is gone
- ❖ 2005 FERC surcharge has been rejected
- ❖ Only 15 states have approved “Delta” funding (9 states have pending cases)
- ❖ Operators have limited ability to fund R&D



AGA Research Priorities to Meet the Challenges:

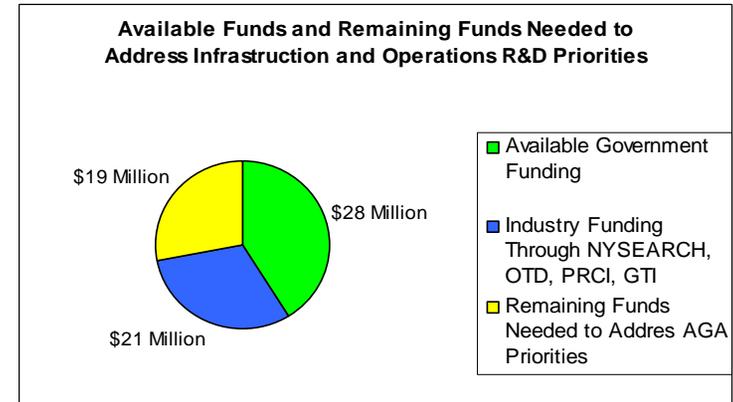
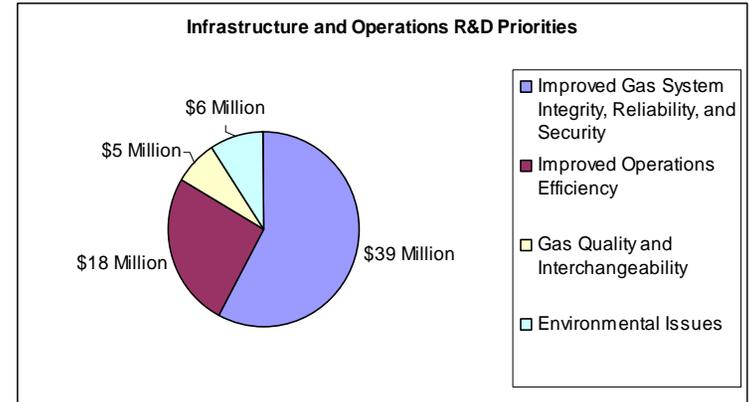


1. Improved Gas System Integrity, Reliability, and Security
2. Improved Operations Efficiency
3. Gas Quality and Interchangeability
4. Environmental Issues
5. Increase applications for natural gas in an era of high cost and competitive pressures



AGA's Assessment of the Gas Utility Funding Picture:

- ❖ Total funds needed to address priorities: \$68M
- ❖ Available government funds: \$28M
- ❖ Industry funding through NYSEARCH, OTD, PRCI, GTI and misc. delta funds: \$21M
- ❖ Remaining funds needed to address AGA research priorities: \$19M



Proposed Research Priorities: Supply and End-Use

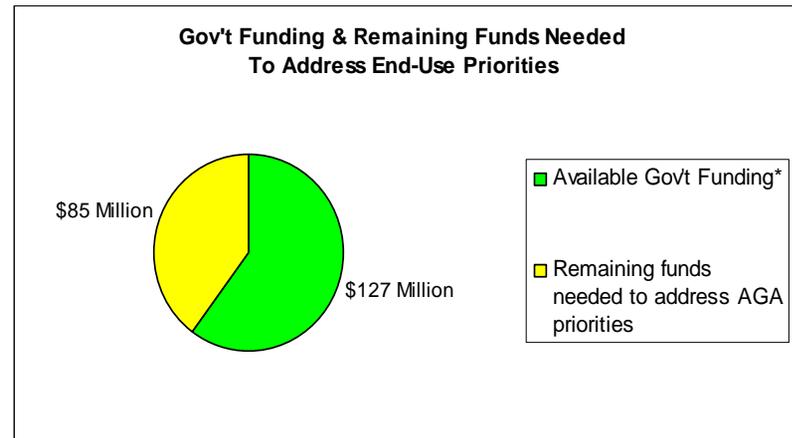
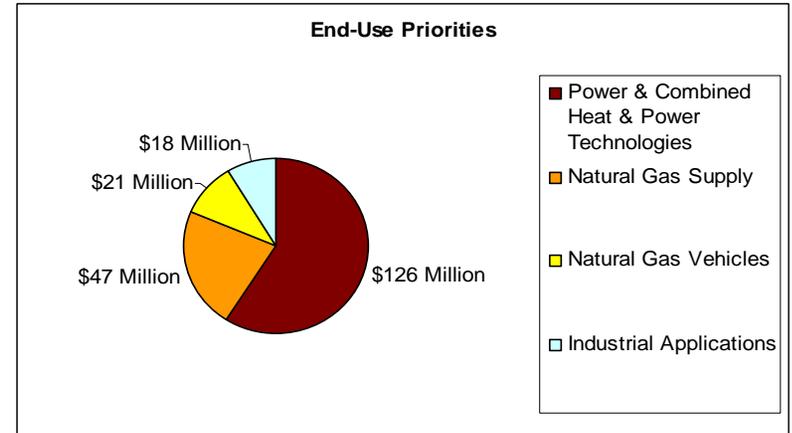


1. Power and Combined Heat and Power Technologies
2. Natural Gas Supply
3. Industrial Applications
4. Natural Gas Vehicles



Funding Picture: Supply and End-Use

- ❖ Total funds needed to address priorities: \$212M
- ❖ Available government funds: \$127M
- ❖ Remaining funds needed to address AGA research priorities: \$85M



Examples of R&D's Impact on the Natural Gas Industry

- ❖ Key-Hole Technology
- ❖ Horizontal Directional Drilling
- ❖ Optical Methane Detector and the upcoming Remote Methane Leak Detector
- ❖ Large Diameter Coiled PE Pipe
- ❖ External Corrosion Direct Assessment
- ❖ Ultrasonic technology and other NDE tools



Points to Take Away

- ❖ Research has played an important role:
 - ✓ In helping companies improve safety, reliability, and efficiency.
 - ✓ Reducing regulatory costs
 - ✓ Improving a company's bottom line
- ❖ There are identified research needs that will help the natural gas industry
- ❖ R&D funding is available, but it will not pay for all priorities
- ❖ We must all work together to make the most of available resources





Thank You!